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S 4902 IZ CARINAE = V336 CARINAE

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The Mira variable IZ Car was originally discovered by Hoffmeister (1949, 1957) and assigned the Sonneberg designation S 4902. Its position is given in the GCVS 4.2 (December 1999 version) as: $8^{\text{h}}30^{\text{m}}58^{\text{s}}$; $-59^{\circ}51'.9$ (1950) with an uncertainty flag. The photo-blue magnitude range is from 12 to > 14 . However, attempts to identify the variable near the published position have been hitherto unsuccessful. Based on examination of UK Schmidt plates, Morel & McNaught (1985) suggested a red star a few arcminutes south ($8^{\text{h}}32^{\text{m}}10^{\text{s}}.57$; $-60^{\circ}05'26''.2$ [2000, USNO-A2.0]) as the most likely candidate, but this star is not demonstrably variable.

I was contacted in February 2000 by Timo Kinnunen, who has been working on identifications of Sonneberg variables. He reported that S 4902 = IZ Car proved difficult to identify. After an exchange of e-mail correspondence and close scrutiny of the Sonneberg finder chart, the following conclusions have emerged:

- 1) The finder chart for S 4902 does not match the sky at the GCVS position, *i.e.* the coordinates are in error.
- 2) The finder chart is a good match for the Mira variable V336 Car, which lies exactly 3° north.
- 3) V336 Car = GSC 8576-0085 = IRAS 08312-5651, at $8^{\text{h}}32^{\text{m}}25^{\text{s}}.22$; $-57^{\circ}02'13''.1$ (2000, Tycho-2).

Precessing the V336 Car position back to equinox 1875, we get $8^{\text{h}}29^{\text{m}}23^{\text{s}}.1$; $-56^{\circ}36'40''$. We then compare Hoffmeister's position of IZ Car for 1875: $8^{\text{h}}29^{\text{m}}24^{\text{s}}$; $-59^{\circ}36'.6$. There appears to have been a simple misprint in the Declination degrees: '59' should read '56'. As IZ Carinae has the type of variation and range consistent with that of V336 Car, we conclude that S 4902 = IZ Car = V336 Car.

I would like to acknowledge Timo Kinnunen for reacquainting me with the problem of IZ Carinae. I would also like to thank Dave Monet (USNO-Flagstaff) for providing the USNO-A2.0 catalogue on CD-ROM, which is invaluable for investigations of this kind.

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